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EXAMINER

LAM, VINH TANG

ART UNIT	PAPER NUMBER
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2629

NOTIFICATION DATE	DELIVERY MODE
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04/15/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/579,048

Applicant(s)

YEUNG ET AL.

Examiner

VINH LAM

Art Unit

2629

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 8 and 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-16, & 18-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05/09/2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-940)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 03/23/2011
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "a second computer system" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims **1-3, 10, and 19** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding Claims **1-3**, the specification as originally filed has failed to provide support for the recitation of "...defining, using a **first computer system**, an object on a digital page image ... related response to be performed by a **second computer system**...". The specification does not reasonably convey one skill in the art how to make or use applicant claimed invention for "...defining, using a **first computer system**, an object on a digital page image ... related response to be performed by a **second computer system**...".

Regarding Claims **1, 10, and 19**, the specification as originally filed has failed to provide support for the recitation of "...wherein the **multimedia content** is **different** from the **object**...". The specification does not reasonably convey one skill in

the art how to make or use applicant claimed invention for "...wherein the multimedia content is different from the object...".

The following is a quotation of the **second paragraph** of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. The limitation of Claims **1**, **10**, and **19** "...wherein the multimedia content is different from the object..." is not clear.

First, what is the definition of "multimedia content"? According the Specification [0018] & [0022], "...prior to usage by a user in order to set up the linkages between the book's contents and multimedia content". As the Examiner understands the invention, the book's contents and multimedia content must be correlated or identical so that the linkage would be established. For example, line 1 of page 1 of a book must be correlated to line 1 of page 1 in the multimedia content (and not line 2 of page 2 in the multimedia content). Similarly, object (e.g. a triangle) on the book must be correlated to a same shape (e.g. a triangle not rectangular) on the multimedia content.

Secondly, does "multimedia content" mean any of audio, video, or images stored in the computer system but not "multimedia content" used as linkage?

Thirdly, does "different" mean different in file types, formats, locations, contents, or physical size/shape?

Finally, if the "multimedia content is different from the object", how would an "object" on a book is linked or correlated to the "multimedia content"?

To further advance prosecution, the Examiner interprets "...wherein the **multimedia content** is **different** from the **object...**" as one of the above assumptions or in agreement with the Specification.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims **1-5, 9-14, 18-19, and 21-22** are rejected under 35 U.S.C. 102(b) as being anticipated by **LeKuch et al. (US PGPub. No. 2002/0041271)**.

Regarding Claim **1**, (Currently Amended) **LeKuch et al.** teach a method comprising:

providing a book ([**0024**], FIG. 2, i.e. *paper having multiple pages*) consisting of one or more pages ([**0024**], FIG. 2) of printed material ([**0031**], FIG. 2, i.e. *unique identifier can be any type of a graphic or alphanumeric printed on the individual pages*);

defining, using a first computer system ([**0019**], FIG. 1, i.e. *digitizer grid 30*), an object on a digital page image ([**0031**], FIG. 2, i.e. *unique identifier printed on the individual pages would have been correlated with an electronic representation of the*

physical page), wherein the digital page image represents at least one page of the one or more pages of printed material ([0031], FIG. 2); and

linking ([0030], FIG. 2, i.e. information on 80...correlated with an electronic representation of the physical page; [0031], FIG. 2, i.e. tracking the pages), using the first computer system ([0019], FIG. 1, i.e. digitizer grid 30), a position of the object on the digital page image ([0032], FIG. 2, i.e. unique identifier can be a predetermined location) to a related response ([0029], FIG. 2, i.e. storing input to 200; [0031], FIG. 2, i.e. tracking the pages) to be performed ([0029]-[0032], FIG. 2, i.e. particular sequence of operations with 40 would have been tracked, correlated, and/or stored) by a second computer system ([0022], ([0023], FIG. 2, i.e. PC 200), wherein the position of the object on the digital page image corresponds to a physical position ([0032], FIG. 2, i.e. particular region of 80 having unique identifier) in the one or more pages of printed material which is identified by the second computer system ([0022], ([0023], FIG. 2, i.e. PC 200) when the book has been placed in a printed material holder ([0024], FIG. 1, i.e. paper pad 80) by a user, the printed material holder being coupled to the second computer system ([0023], FIG. 2, i.e. PC 200), wherein the position on the digital page image is defined by a relative position of the book to a known physical location of the printed material holder ([0024], [0030], FIG. 1), and

wherein the related response ([0036], FIG. 1, i.e. unique identifier... displayed in LCD 45) to be performed by the second computer system ([0036], FIG. 2, i.e. PC 200) comprises rendering multimedia content ([0036], FIG. 1, i.e. unique identifier... displayed in LCD 45) to be provided to the user while reading the book ([0024], FIG. 2,

i.e. writings and drawings on 80) and linked to the position of the object ([0029]-[0032], [0036], FIGs. 1 & 2, *i.e. since the unique identifier and writings on 80 is correlated with an electronic representation which is accurately tracked, stored, retrieved, and displayed by PC 200*); and

wherein the multimedia content ([0030], FIG. 2, *electronic representation of the physical page*) is different from the object ([0031], FIG. 2, *i.e. any type of a graphic or alphanumeric printed on 80*).

Regarding Claim 10, (Currently Amended) **LeKuch et al.** teach a non-transitory computer readable storage medium having a plurality of machine accessible instructions stored thereon, wherein when the instructions are executed by a processor ([0017], FIG. 1, *i.e. PC 200*), the instructions cause the processor to:

define an object on a digital page image ([0031], FIG. 2, *i.e. unique identifier printed on the individual pages*) representing a page of printed material wherein the page of printed material ([0031], FIG. 2) is included in a book ([0024], FIG. 2, *i.e. paper having multiple pages*) consisting of one or more pages of printed material ([0024], FIG. 2); and

link a position of the object on the digital page image ([0032], FIG. 2, *i.e. unique identifier can be a predetermined location*) to a related response to be performed by the computer system ([0032], FIG. 2, *i.e. particular sequence of operations*), wherein the position of the object on the digital page image corresponds to a physical position ([0032], FIG. 2, *i.e. particular region of 80 having unique identifier*) in the one or more pages of printed material which is identified by a computer system when the book has

been placed in a printed material holder ([0024], FIG. 1, i.e. *paper pad 80*) by a user, the printed material holder being coupled to the computer system, wherein the position on the digital page image is defined by a relative position of the book to a known physical location of the printed material holder ([0024], [0030], FIG. 1), and

wherein the related response ([0036], FIG. 1, i.e. *unique identifier... displayed in LCD 45*) to be performed by the second computer system ([0036], FIG. 2, i.e. *PC 200*) comprises rendering multimedia content ([0036], FIG. 1, i.e. *unique identifier... displayed in LCD 45*) to be performed by the computer system ([0036], FIG. 2, i.e. *PC 200*) comprises rendering multimedia content ([0036], FIG. 1, i.e. *unique identifier... displayed in LCD 45*) to be provided to the user while reading the book ([0024], FIG. 2, i.e. *writings and drawings on 80*) and linked to the position of the object ([0029]-[0032], [0036], FIGs. 1 & 2, i.e. *since the unique identifier and writings on 80 is correlated with an electronic representation which is accurately tracked, stored, retrieved, and displayed by PC 200*); and

wherein the multimedia content ([0030], FIG. 2, *electronic representation of the physical page*) is different from the object ([0031], FIG. 2, i.e. *any type of a graphic or alphanumeric printed on 80*).

Regarding Claim 19, (Currently Amended) **LeKuch et al.** teach an apparatus comprising:

a pointing device ([0019], FIG. 1, i.e. *input pen 40*) to determine a position on a page ([0032], FIG. 2, i.e. *unique identifier can be a predetermined location*) of printed material ([0031], FIG. 2, i.e. *unique identifier can be any type of a graphic or*

alphanumeric printed on the individual pages) wherein the page of printed material is included in a book ([0024], FIG. 2, *i.e. paper having multiple pages*) consisting of one or more pages ([0024], FIG. 2) of printed material ([0031], FIG. 2, *i.e. unique identifier can be any type of a graphic or alphanumeric printed on the individual pages*), wherein the book is to be placed on a printed material holder ([0024], FIG. 1, *i.e. paper pad 80*) by a user, and wherein the position on the one or more pages of printed material is defined by a relative position ([0032], FIG. 2, *i.e. particular region of 80 having unique identifier*) of the book to a known physical location of the printed material holder ([0024], [0030], FIG. 1);

a communicating device ([0023], FIG. 1, *i.e. link 210*) coupled to the printed material holder to transmit the position to a computer system ([0017], FIG. 1, *i.e. PC 200*);

a maker component to define an object on a digital page image ([0031], FIG. 2, *i.e. unique identifier can be any type of a graphic or alphanumeric printed on the individual pages*) representing a page of the printed material ([0031], FIG. 2, *i.e. unique identifier printed on the individual pages*); and to link a position of the object on the digital page image ([0032], FIG. 2, *i.e. unique identifier can be a predetermined location*) to a related response to be performed by the computer system ([0032], FIG. 2, *i.e. particular sequence of operations*), wherein the related response ([0036], FIG. 1, *i.e. unique identifier... displayed in LCD 45*) to be performed by the computer system ([0023], FIG. 2, *i.e. PC 200*) comprises rendering multimedia content ([0036], FIG. 1, *i.e. unique identifier... displayed in LCD 45*) to be provided to the user while reading the

book ([0024], FIG. 2, i.e. writings and drawings on 80) and linked to the position of the object, wherein the multimedia content is different from the object ([0029]-[0032], [0036], FIGs. 1 & 2, i.e. since the unique identifier and writings on 80 is correlated with an electronic representation which is accurately tracked, stored, retrieved, and displayed by PC 200), wherein the multimedia content ([0030], FIG. 2, *electronic representation of the physical page*) is different from the object ([0031], FIG. 2, i.e. *any type of a graphic or alphanumeric printed on 80*); and

a player ([0024], FIG. 1, i.e. digitizer grid 30) component to correlate the pointed position to selected content associated with the printed material ([0024], FIG. 1), the selected content being accessible by the computer system ([0024], FIG. 1); and to provide a valid response ([0026], FIG. 2, i.e. *40 communicates to a data control device which performs different functions*) to the user based at least in part on the pointed position and the correlated content, wherein the valid response includes at least one of rendering audio content, rendering video content, rendering image content, rendering text content ([0024], FIG. 1), and performing an action by the computer system ([0032], FIG. 2, i.e. *particular sequence of operations*).

Regarding Claims 2 and 11, (Currently Amended/ Previously Presented) **LeKuch et al.** teach the method of claim 1 and the non-transitory medium of claim 10 respectively, wherein the response comprises at least one of rendering audio content, rendering video content, rendering image content, rendering text content ([0030], FIG. 1), and performing an action by the (second (Claim 2 only)) computer system ([0033], FIG. 1).

Regarding Claims **3** and **12**, (Currently Amended/ Previously Presented)

LeKuch et al. teach the method of claim 2 and the non-transitory medium of claim 11 respectively, further comprising (instructions for (claim 12)) generating a multimedia database to store digital multimedia content including at least one of audio content, video content, image content, and text content ([0024], FIG. 1); a printed material content database to store positional information about objects on the digital page images and linkage information between the objects on the digital page images ([0021], [0030], FIG. 1) and at least one of the multimedia contents and actions ([0021], [0024], FIG. 1); and an action library to store directives for actions to be performed on the computer (second (Claim 3 only)) system ([0035], FIG. 1).

Regarding Claims **4** and **13**, (Previously Presented) **LeKuch et al.** teach the method of claim 2 and the non-transitory medium of claim 11 respectively, wherein (instructions for (claim 13)) defining the object on the digital page image comprises using an electronic pen to outline boundaries of the object on the digital page image ([0033], FIG. 1).

Regarding Claims **5** and **14**, (Previously Presented) **LeKuch et al.** teach the method of claim 2 and the non-transitory medium of claim 11 respectively, wherein (instructions for (claim 14)) defining the object on the digital page image comprises using an electronic pen to select key points on the boundary of the object on the digital page image ([0033], FIG. 1).

Regarding Claims **9** and **18**, (Previously Presented) **LeKuch et al.** teach the method of claim 2 and the non-transitory medium of claim 11 respectively, wherein

the one or more pages of printed material comprises material generated by a user ([0024], FIG. 1).

Regarding Claim 21, (Previously Presented) **LeKuch et al.** teach the apparatus of claim 19, further comprising a multimedia database to store digital multimedia content ([0024], FIG. 1), a printed material content database to store positional information about objects on the digital page images ([0021], [0030], FIG. 1) and linkage information between the objects on the digital page images ([0032], FIG. 2, *i.e. unique identifier can be a predetermined location*) and at least one of the multimedia contents and actions, and an action library to store directives for actions to be performed on the system ([0035], FIG. 1).

Regarding Claim 22, (Currently Amended) **LeKuch et al.** teach the apparatus of claim 19, wherein the printed material comprises material generated by a user ([0024], FIG. 1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) a patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6-7, 15-16, and 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over **LeKuch et al.** (US PGPub. No. 2002/0041271).

Regarding Claims **6** and **15**, (Previously Presented) **LeKuch et al.** teach method of claim 2 and the non-transitory medium of claim 11 respectively, wherein (instructions for (claim 15)) defining the object on the digital page image comprises using a mouse ([0042], *i.e. obviously well-known that a mouse may replace pen 40 as an input device*) to manipulate a graphical object on a display to encapsulate the boundary of the object on the digital page image as displayed on the display ([0033], FIG. 1).

Regarding Claims **7** and **16**, (Previously Presented) **LeKuch et al.** teach the method of claim 2 and the non-transitory medium of claim 11 respectively, wherein defining the object on the page comprises using a mouse ([0042], *i.e. obviously well-known that a mouse may replace pen 40 as an input device*) to select key points on the boundary of the object on the page as displayed on a display ([0033], FIG. 1).

Regarding Claim **20**, (Previously Presented) **LeKuch et al.** teach the apparatus of claim 19, wherein the pointing device comprises an electronic pen ([0033], FIG. 1).

Response to Arguments/Amendments/Remarks

6. Claims **8** and **17** are canceled.
7. Applicant's arguments filed 03/14/2011 have been fully considered but they are not persuasive.

First of all, applicant argues (P. 7-9) that Claims 1-3 limitations "...defining, using a first computer system, an object on a digital page image ... related response to be performed by a second computer system..." should not be rejected under 35 U.S.C. § 112 1ST & 2ND ¶ because "...the application program called a "player" may be used with a user's computer system, and the application program called a "maker" may be used with a publisher's computer system...". However, the Examiner respectfully disagrees because:

- (i) There is only one computer system disclosed in the Drawings namely, computer system 102.
- (ii) According to the Specification, the "player" component is defined as an "application program" ([0027]); the "player" component is also defined as an "application program" ([0028]); and the computer system is defined as "PC" ([0018]). "Application program" is coded instructions (i.e. functional descriptive material) residing in the "PC" readable medium such as storage (i.e. physical structure). Furthermore, Figure 3 clearly show instructions performing steps correlated between the "player" and "maker" components. Therefore, application program and computer system are undisputedly not similar or synonymous although "a "maker" may be used with a publisher's computer system".
- (iii) An introduction of the definition for a computer system as an application program into the claims would be rejected under U.S.C. 112 1st ¶ as New Matter and may be subjected to U.S.C. 101 as NonStatutory Subject Matter.

Secondly, applicant argues (P. 10-11) that **LeKuch et al.** do not teach "...object on the digital page image to *a related response to be performed by a second computer system...*". However, the Examiner respectfully disagrees because **LeKuch et al.** teach

object on the digital page image ([0032], FIG. 2, i.e. *unique identifier can be a predetermined location*) to a related response ([0029], FIG. 2, i.e. *storing input to 200*; [0031], FIG. 2, i.e. *tracking the pages*) to be performed ([0029]-[0032], FIG. 2, i.e. *particular sequence of operations with 40 would have been tracked, correlated, and/or stored*) by a second computer system ([0022], ([0023], FIG. 2, i.e. *PC 200*).

Thirdly, Claims 6-7, 15-16 and 20 are rejected properly by virtue of their dependencies from Claims 1 and 10.

Finally, applicant argues (P. 12-11) that the newly amended limitations to Claims 1, 10, and 19 "...the related response...linked to the position of the object, wherein the multimedia content is different from the object" are not taught by the reference.

However, the Examiner respectfully disagrees because **LeKuch et al.** teach

the related response ([0036], FIG. 1, i.e. *unique identifier... displayed in LCD 45*) to be performed by the second computer system ([0036], FIG. 2, i.e. *PC 200*) comprises rendering multimedia content ([0036], FIG. 1, i.e. *unique identifier... displayed in LCD 45*) to be provided to the user while reading the book ([0024], FIG. 2, i.e. *writings and drawings on 80*) and linked to the position of the object ([0029]-[0032], [0036], FIGs. 1 & 2, i.e. *since the unique identifier and writings on 80 is correlated with an electronic*

representation which is accurately tracked, stored, retrieved, and displayed by PC 200);
and

wherein the multimedia content ([0030], FIG. 2, *electronic representation of the physical page*) is different from the object ([0031], FIG. 2, *i.e. any type of a graphic or alphanumeric printed on 80*).

Conclusion

The prior art(s) made of record and not relied upon (is)/are considered pertinent to applicant's disclosure: Ohara; Makoto et al. (US Patent/PGPub. No. 6297812).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VINH T. LAM whose telephone number is (571)270-3704. The examiner can normally be reached on M-F (7:00-4:30) EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on (571) 272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vinh T Lam/
Examiner, Art Unit 2629

/Amare Mengistu/
Supervisory Patent Examiner, Art Unit 2629